

REPORT OF THE SECRETARY OF STATE
ON THE EXAMINATION AND EVALUATION OF AN
DIRECT RECORDING ELECTRONIC VOTE TALLYING SYSTEM

In November 2001 Hart InterCivic, Inc. of Layfayette, Colorado requested the review and examination of a direct recording electronic system under RCW 29.33.041 and 29.33.300. The hardware and software for this system are marketed under the name eSlate Direct Record Electronic Voting System. The Hardware components include: the Mobile Ballot Box (MBB), Judges Booth Controller (JBC v.01.14.02), and the eSlate 3000 electronic voting device. The Software that provides the administrative functions of the system is defined in two modules; the Ballot Origination Software System (BOSS v.2.7.00), and Tally (v.2.7.00).

The eSlate is a poll-site based device using a direct recording electronic voting interface. The eSlate device uses a rotary wheel interface that allows the voter to select their ballot choice and an "enter" button to record their selection. In addition, the eSlate offers a wide variety of interfaces that allow physically-challenged voters to vote independently including: audio feedback, touch pads, and an interface for "sip and puff" devices.

The Judges Booth Controller (JBC) is a poll-site based device that is directly connected to up to twelve eSlate devices. The JBC provides administrative functions including; activating the correct ballot for each voter and accumulating the cast ballot images. The Mobile Ballot Box (MBB) is a reusable, portable FLASH memory device used for storing and transporting election information to and from the polling places. The election information includes the election definition for the entire election and the accumulated set of cast ballot images. Cast ballot records are stored in three locations; the eSlate (original), on the MBB (primary copy), and on the JBC (backup copy).

The BOSS software is menu driven and allows the user to describe all aspects of an election. In preparation for ballot counting, the user enters office descriptions, positions, precinct combinations, ballot types, and any statistical information such as registered voter totals. The BOSS software is also used to produce and download the election definition including the precinct specific programming for the entire county onto the MBB. The JBC can be then be initialized as an 'in person absentee voting' system with access to all the precincts and ballot styles for an election when any MBB is installed. Alternatively, the JBC can be initialized for a specific polling place with a specified subset of precincts and ballot styles at the time the MBB is installed.

A personal computer running the Tally software serves as the central accumulator for county wide results. Tally can accumulate results via reading the PBBs or through telephonic communication with the JBC.

An electronic vote tallying system must meet the following requirements (as set forth in RCW 29.34.090) in order to be approved for use in Washington State:

1. It must correctly count votes marked on the ballot for any office or ballot proposition;
2. It must recognize and not count overvoted ballots;
3. It must accumulate a count of a specific number of ballots tallied for a precinct;
4. It must accommodate the rotation of candidates' names;
5. It must automatically produce precinct totals in either printed, marked, or punched forms; and
6. It must add precinct totals and produce a cumulative total.

On January 23, 2001 a preliminary public hearing was held to demonstrate the Hart InterCivic eSlate Direct Record Electronic Voting System. Representing the Office of the Secretary of State was David Elliott, Assistant Director of Elections and Paul Miller, Voter Registration and Systems Manager. The meeting was also attended by The Honorable Kim Wyman, Thurston County Auditor, staff members of the Thurston County Auditor's Office, The Honorable Cathy Pearsall-Stipek, Pierce County Auditor, staff members of the Pierce County Auditor's Office, and representatives from Hart InterCivic. The vendor made a presentation of the eSlate Direct Record Electronic Voting System and a test election was conducted using ballots prepared by the observers. The vendor answered questions from the Secretary of State staff and the public.

On January 24, 2001 a Logic and Accuracy test was conducted using a group of defined votes prepared by the Pierce County Auditor's Staff in collaboration with the Office of the Secretary of State. Representing the Office of the Secretary of State was Paul Miller, Voter Registration and Systems Manager. The meeting was also attended by The Honorable Cathy Pearsall-Stipek, Pierce County Auditor, staff members of the Pierce County Auditor's Office, and representatives from Hart InterCivic.

Following the public hearing and Logic and Accuracy test, a field test election was held in Pierce County. This election was conducted under a preliminary certification issued by the Office of the Secretary of State on January 24, 2002. The equipment was used on a voluntary basis during the February 5th, 2002 Special Election and featured in-person absentee voting at the Pierce County Courthouse and at several polling places in the county.

Following the field test a second public hearing was held on June 20, 2002 to further demonstrate Hart InterCivic's eSlate Direct Record Electronic Voting System. Representing the Office of the Secretary of State was Dean Logan, Director of Elections, David Elliott, Assistant Elections Director, John Pearson, Deputy Elections Director, and several other Secretary of State staff members. The meeting was also attended by the Mason County Director of

Elections, The Honorable Gary Zandell, Lewis County Auditor, and representatives from Hart-InterCivic. The vendor made a presentation of the eSlate election system and a test election was conducted using a group of defined votes prepared at the direction of the Office of the Secretary of State and other ballots prepared by the observers. The vendor answered questions from Secretary of State Staff, and others present.

FINDINGS OF THE SECRETARY OF STATE

Upon review of the staff evaluation of the eSlate Direct Record Electronic Voting System (NASED N020400000210 and 011001) using the eSlate 3000 DRE Precinct device, the presentation by the vendor, the evaluation of the system conducted by the SysTest laboratories in 2001 and the results of the tests performed on this system, the Secretary of State finds that the system satisfies the requirements of RCW 29.33.300 when used in the manner described below.

The user county will not use the system's provisional voting features and will continue to provide a paper ballot to voters in situations that call for a special ballot. Special Ballots are part of a 'fail-safe' process that allows an individual to cast a ballot in situations where election board workers are unable to determine the individual's eligibility. The ballot is only counted after election staff is able to determine that the individual is in fact eligible to vote. The eSlate provides a feature of convenience that allows the ballot to be cast on the eSlate and optionally included in the election results after review by election staff. At this time the system handles these ballots as a complete unit, if the ballot is accepted it cannot be accepted in parts. The test and materials review could not establish that the feature functions in a manner consistent with RCW and state practice.

SPECIAL IN-PERSON ABSENTEE VOTING PROCEDURE:

The design of the eSlate, and the requirements of Washington State law, necessitates the use of the following procedures on the part of the user county to use the eSlate for 'in-person absentee voting'. 'In-person absentee voting' refers to voters who cast a ballot on the eSlate prior to the election date. Conceptually this is the same as a voter picking up and casting an absentee paper ballot at the county elections office prior to an election.

The procedures are:

The system may be used as an 'in-person absentee voting' system if the security safeguards applied to the eSlate are consistent with those used to protect returned absentee ballots. Access to the Judges Booth Controller (JBC) and eSlate must be controlled. The device must remain in plain view of the office at all times during working hours and under lock and seal after business hours. The eSlate voter must sign the same oath an absentee voter does and the user county must maintain a log of all 'in-person absentee' voters with the voters' signatures. The poll books must be marked with an indicator that warns the election board workers not to issue a regular ballot to a voter who has been reported to have voted through his in-person absentee process. It is also recommended that the user county keep a record of the number of votes cast each evening when they close the Judges Booth Controller (JBC) and confirm the number of votes on the device when opening the device the next morning. It is further recommended that the Mobile Ballot Box (MBB) and/or eSlate be kept separate from the Judges Booth Controller (JBC) after hours.

Under the provisions of RCW 29.33.041, the eSlate Direct Record Electronic Voting System using the Ballot Origination Software System (v.2.7.00, NASED N020400000210), Tally (v.2.7.00, NASED 011001) along with the Judges Ballot Counter device (v.1.14) and the eSlate (device v.1.14) and associated firmware, are approved for use in Washington State, as a direct recording electronic vote tabulation system, when used in compliance with the procedures contained in this certification and Washington State law.

It is recommended that the canvassing board of any county using this system adopt written procedures governing these processes. This equipment should be used with a device or devices capable of suppressing current surges, voltage fluctuations, and any other line disturbances.

Certified on this June 25, 2002

SAM REED
Secretary of State